requests that Examiner Luu not issue a next Official Action until such an Interview may be arranged, with the possibility of filing a supplemental response in light of the Interview, preferably within a few days of the filing of the present response.

Before discussing in detail the rejections of the claims, it is believed that a brief recapitulation of the present invention is in order. The present invention is directed towards a method and system for communicating, through Internet electronic mail, between a monitored device and a monitoring device. Figure 7, and page 17, line 3- page 18, line 22 of the specification specifically show and describe the processes for input messages and output messages, which are in the application layer. Claims 10, 12-14, 16-17, 19, 36, 38, 40, 42, and 52-61 specifically recite that information is transmitted between the monitoring device and the monitored device through Internet electronic mail, wherein the information is contained in an Internet electronic mail message.

The monitored device is generically recited in the independent claims but the specific implementation recited in the specification, which is not to be used to improperly limit the claims including the independent claims is a business office device as recited in Claims 12 and 38. Specific implementations of the business office device include a copier, a digital copier, a facsimile machine, a scanner, a printer, a facsimile server, or other business office machine. See e.g., page 14, lines 16-20 of the specification, and element 24, 28, and 32 of Figure 1, for example.

Independent Claims 10, 16, 36, and 42 recite the utilization of status information determined using sensors. The specification discloses the use of many different types of sensors found in business office devices (or other devices) and such sensors are described in the specification throughout pages 12-15. It is to be noted that the sensors of the present invention are not limited to the sensors used in a business office machine but may be any type

of sensors including the sensors found in "a metering system including a gas, water, or electricity metering system, vending machines, or any other device which performs mechanical operations, has a need to be monitored, and performs a function." See page 14, lines 20-26.

Figure 11 illustrates one of the processes of the invention in which the monitored device transmits information such as density information to the monitoring device. The description of Figure 10 is set forth in the specification at page 20, line 23 - page 22, line 2. Claim 10 specifically recites that the monitoring device requests a status of the monitored device using sensors. This request for status is transmitted through Internet electronic mail. Page 21, line 14 - page 22, line 2 describes how the monitoring device transmits a connectionless-mode of communication and the specification at page 18, lines 8-22 describes how a connectionless-mode of communication may be implemented through Internet electronic mail.

Claims 18 and 44 describe the use of a connection-mode of communication when the status information is outside of the normal operating parameters. This feature of the invention is supported by the specification at lines 13-26 of page 19.

Attention is first directed to the rejection of Claim 10 as obvious over Kraslavsky et al. in view of Cohn et al. Kraslavsky et al. is directed to an apparatus for coupling a printer with a LAN to control printer operation by transferring control parameters, printer status data and printer configuration data between the printer and the LAN. A Network Expansion Board ("NEB") incorporating Kraslavsky et al.'s invention is coupled to a printer which has an open architecture, and is also coupled to a LAN bus 6 through a LAN interface 8.[1] In discussion of "Related Art," Kraslavsky et al. refers to other exemplary devices for coupling

[1]See, e.g., col. 4, lines 16-20.

printers with LANs as doing "very little toward making the printer a truly intelligent, responsive member of the network,"[2] and as not allowing "the printer to transmit sufficient amounts of data to the LAN to enable the printer to be an effective and intelligent member of the network."[3] In the "Summary of the Invention" section, Kraslavsky et al. states:[4]

> In its general aspects, the present invention provides hardware and software solutions for making a network peripheral, such as a printer, an *interactive* [emphasis ours] network member capable not only of receiving and processing data received from the network, but of transmitting to the network significant amounts of data such as detailed status information, operational parameters, and even data input to the peripheral through other modalities such as scanning, facsimile reception, etc. By integrating such hardware and software with the peripheral, it is possible to eliminate the requirement for dedicating a personal computer to the peripheral to act as a peripheral server.

It is therefore evident that the purpose of Kraslavsky et al. is to enable a network peripheral, e.g., a printer to transmit sufficient amounts of data to a LAN to enable the peripheral to be an effective and intelligent member of the network, *including transmission of data input to the peripheral through other modalities such as scanning, facsimile, reception, etc.* It is also evident that the *interactive* nature of the NEB is critical to Kraslavsky et al.:[5]

> In summary, at Step S28, a method for remotely controlling a manually-operable function of a networked printer through an interactive network board having a LAN interface for LAN communication, comprises the step of issuing, at a remote location, a command to the board that will cause the board to transfer printer status information through the board to the remote location through the LAN interface. At the remote location, a printer status may be displayed, and a second command may be issued at the remote location to the board through the LAN interface to cause the board to perform a manually-operable function.

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[2]See, e.g., col. 1, lines 53-54.

[3]See, e.g., col. 1, lines 61-63.

[4]See, e.g., col. 4, lines 3-14.

[5]See, e.g., col. 21, lines 6-15.

In Kraslavsky et al. there is a desire to have a high-speed response or a near real-time response when determining status or control information, as evidenced by Kraslavsky et al.'s statement that "This multi-tasking processing insures that the NEB is responsive to both the network and the printer on a near real-time basis."[6]

In contrast, Claim 10 recites a method for communicating between a monitored device and a monitoring device, comprising the steps of determining information to be transmitted by the monitoring device to the monitored device, the information including a request for a status of the monitored device determined using sensors within the monitored device, and transmitting the information through Internet electronic mail from the monitoring device to the monitored device, wherein the information is contained in an Internet electronic mail message. The Official Action states, "Kraslavsky does not explicitly teach the message is an Internet electronic mail message."[7] It is respectfully pointed out that the "information" which is transmitted by the step of transmitting is transmitted *through Internet electronic mail* and is *contained in* an "Internet electronic mail message," and therefore Kraslavsky et al. does *not* disclose or suggest the step of transmitting as recited by Claim 10, and the Official Action does not fully address this shortcoming in its analysis of the step of transmitting, other than the statement referenced above.[8]

Cohn et al. is directed to a network-based voice messaging and multimedia communications and directory system and method of operation.[9]

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[6]See, e.g., col. 16, lines 9-11, and col. 14, lines 37-48 .

[7]See Official Action, Page 3, lines 5-6.

[8]See Official Action, Page 3, lines 3-4.

[9]See, e.g., col. 1, lines 6-10

According to the Official Action:[10]

> Cohn teaches various source and destination message systems that comprise voice mail, electronic mail, facsimile transmission facilities, video transmission facilities, other data transmission or receipt facilities that can communicate message to each others using Internet electronic mail message format (col. 8 lines 36-65, and col. 15 line 65 - col. 16 line 36).

Applicant respectfully points out that Claim 10 recites *transmitting the information through Internet electronic mail from the monitoring device to the monitored device, wherein the information is contained in an Internet electronic mail message*, whereas the Official Action merely states that Cohn teaches using an "Internet electronic mail message format," and goes no further in showing how this statement by the Official Action leads to rendering the recited method of Claim 10 obvious. Applicant respectfully submits that Cohn et al. does *not* disclose or suggest transmission, through Internet electronic mail, information contained in Internet electronic mail messages to communicate information. In the portions cited by the Official Action, in col. 8, lines 36-49, Cohn et al. states:

> For purposes of describing the advantages of the present invention, all the various sources of and destinations for data traffic coupled to and serviced by the communications system 10 are referred to as "messaging systems" whether they comprise voice mail systems, electronic mail systems, facsimile transmission facilities, video transmission facilities or other data transmission or receipt facilities. As such, for purposes of this description, the data received from such a messaging system is referred to herein as a "message" regardless of its composition. For example, a message received, processed and delivered by the communications system 10 may comprise a voice message, an electronic mail message, a facsimile or video transmission or any combination of medium to form a compound message.

In col. 15, line 65 - col. 16, line 36, Cohn et al. states, in part:

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[10]See Official Action, Page 3, lines 7-11.

> For large scale integrated network functionality, interfacing with voice messaging systems introduces a further complication to the internal message format in that the communications system must support standard telephone interfaces and support messages that are typically large, spanning several minutes of digitized analog audio signals. The delivery of these messages involve a translation or conversion of the message. For example, the message may need to be translated into a different media. Data transmissions that are received may need to be converted from one format to another. As will be discussed more completely with reference to FIG. 11, these conversions and translations are performed by media translator 69. In part, these functions are accomplished by encapsulating all received message data with a standard message wrapper to form a message for transport and storage within the communications system 10. This wrapper may be based, for example, on MIME encapsulation protocol. Many messages received by the communications system 10 already include a message wrapper. These messages are also converted to the standard internal message format. This format tags and labels each message media within a message with the addressing information provided by the sender. Each message contains a date field which comprises the time the message was sent as provided by the message submission protocol or, in the alternative, as provided by the communications system of the present invention. Each message also contains a "from" field where both the network identification of the message sender and the message sender's messaging system identifier are combined into an Internet style address. Each message also contains a "to" field where the network identification of the intended recipient and the messaging facility of the intended destination facility are combined into an Internet style address. Each message also receives a unique message identification field for use in administrative tracking of messages and other administrative concerns.

It is respectfully pointed out that the above-cited portion of Cohn et al. discusses using a message wrapper which may be *based* on MIME encapsulation protocol, and discusses combining fields into an "Internet style address." It is respectfully submitted that Cohn et al.'s system 10 does *not* use Internet electronic mail transmission of messages internally because use of Internet electronic mail would destroy the functionality of Cohn et al.'s system 10. For example, Cohn et al. states:[11]

> communications system 10 operates to integrate and interconnect disparate sources and technologies of communication traffic and to translate messages between them. The communications system 10 maintains a universal database

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[11]See, e.g., col. 7, line 59 - col. 8, line 35.

> of all users of the communications system and their individual communications profiles including the various media in which the users can send and receive messages. For example, a single user may control and receive communications using an electronic mail facility, a voice mail facility, a facsimile facility and a video facility. All of these facilities are identified in a user profile record associated with that user within the network database associated with system 10. As will be discussed herein, a copy of that database is maintained in each network hub within system 10 exemplified by network hubs 12, 14 and 16 in FIG. 1. For large scale integrated network functionality, interfacing with voice messaging systems introduces further complications for maintaining individual user profiles in that large distributed network directories must be built and maintained based upon numerical addressing and accessed utilizing DTMF signaling and the native protocols of the user system. The communications system 10 further includes media, protocol, and language translation capabilities such that, for example, messages sent in one media can be received in a different media. For example, an electronic mail message might be sent to a destination user that does not have an electronic mail facility but does have a facsimile facility or prefers the receipt of a facsimile transmission over an electronic mail transmission. Accordingly, the communications system 10 will translate the electronic mail message into a facsimile message and deliver the message to the designated facsimile facility. For large scale integrated network functionality, interfacing with voice messaging systems introduces a further complication for the processing of multimedia messages and the alternate routing in that large distributed network directories must be built containing the numerical addresses for the different media destinations and accessed by the numerical addresses of the users of the communications system, and delivered utilizing DTMF signaling and the native protocols of the user system. In addition, the communications protocols associated with voice messaging systems do not have the ability to request and specify special handling for multimedia messages.

Thus, for example, the system 10 of Cohn et al. requires the maintenance of a universal database of (human) user profiles for users of the system, which is not feasible for transmission of information through Internet electronic mail wherein the information is contained in an Internet electronic mail message as recited by Claim 10.

According to the Official Action:[12]

> It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of Kraslavsky and Cohn to use Internet electronic mail message to communicate between Kraslavsky's

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[12]See Official Action, Page 3, lines 12-15.

monitored and monitoring devices because it would allow message to be transferred globally between any devices.

Applicant respectfully points out that, at the time of the present invention, modifying Kraslavsky et al. to operate by transmitting, through Internet electronic mail, information which includes a request for a status of a monitored device, wherein the information is contained in an Internet electronic mail message, which may be quite slow, would be contrary to the teachings of Kraslavsky et al., e.g., in its near real-time requirements, and its expectations for transmitting significant amounts of data as discussed previously. As discussed above, Cohn et al. does not suggest transmission, through Internet electronic mail, information contained in Internet electronic mail messages to communicate information. The recipients and users of the messages of Cohn et al. are specifically human users interfacing with the system.

Applicant respectfully points out that, in col. 30, lines 55-67, Cohn et al. disclose a messaging system between people who subscribe to a closed system. The system described separates subscribers from non-subscribers, whereas a general Internet electronic mail system does not distinguish between subscribers and non-subscribers. Also, as recited in Claim 1 of Cohn et al., the user profiles in database storage are critical to the system of Cohn et al. The system updates the user profile among the hubs that use the database for operation, as shown in Figure 10. The availability of the user profile seems to be a critical factor of the system of Cohn et al., whereas Internet electronic mail, in contrast, does not require keeping a user profile. The locations of the sender and destination are likely to be found in the last hierarchy of the DNS server. The DNS information at the lowest level is not replicated among the hubs in the system as in Cohn et al. Normally, intermediate systems between the sender and the

receiver do not have any information about the user nor have any need to store the user profile.

It is respectfully pointed out that there is no suggestion by the Official Action as to how one would accomplish allowing a "message to be transferred globally between any devices" to transmit information contained in Internet electronic mail messages transmitted through Internet electronic mail by combining the teachings of Kraslavsky et al. and Cohn et al., especially since Cohn et al. teaches transmitting user-to-user electronic mail, and *not* electronic mail "between any devices." Cohn et al. also does not suggest transmitting electronic mail on a near real-time basis, as Kraslavsky et al. would seem to require in order to combine the references. As Applicant has pointed out previously, modifying Kraslavsky et al. to operate using transmission of information contained in Internet electronic mail messages (at the application layer) through Internet electronic mail which may be quite slow would be contrary to the teachings of Kraslavsky et al.

Applicant respectfully submits that the Official Action has shown *no motivation* to modify Kraslavsky et al. to use transmission of information including a request for a status of a monitored device through Internet electronic mail, wherein the information is contained in an Internet electronic mail message "because it would allow message [sic messages] to be transferred globally between any devices," as stated by the Official Action with regard to using Internet electronic mail messages to communicate, as discussed previously. "Because there is no evidence in the record of a suggestion, teaching, or motivation to combine the prior art references asserted against the pending claims, the obviousness rejections" should be reversed. *In re Dembiczak*, 50 USPQ2d 1614, 1620 (Fed. Cir. April 28, 1999).

Kraslavsky et al. teach an interactive system (see, for example, col. 4, lines 3-14). The interactive system is critical to the remote control system of Kraslavsky et al. (see, for

example, col. 21, lines 6-15). It is pointed out that there is no guarantee of interactivity in an Internet electronic mail system, as a sender may send Internet electronic mail out when the receiver is down. Additionally, the system of Kraslavsky et al. only responds to a command from the remote location, and there is no teaching of initiation of transmission of information to the remote location.

One of the requirements for the system of Kraslavsky et al. is the board and remote system to establish the direct connection. An exemplary list of the direct connection requirements is illustrated in FIG. 13, step S1309; FIG. 15, steps S1501, S1502; FIG. 16A, step S1606; FIG. 20, step S2003; FIG. 24, step S2403; and col. 18, lines 17-33 of Kraslavsky et al. Applicant points out that the system employs broadcast as a means to notify existence before establishing the direct communication as shown in FIG. 5B S13, FIG. 14 S1401, FIG. 16A S1603, S1604, FIG. 20 S2001, FIG. 24 S2401. In Internet electronic mail systems, there is no broadcasting to establish the communication between the sender and receiver of the message. TCP/IP may use ARP to get the MAC address. However, it is likely to be the MAC address of an intermediate station instead of the final destination.

Consequently, the reversal of each of the outstanding rejections of Claims 10, 12-19, 36, 38-44, and 52-61 is respectfully requested for reasons as discussed above with regard to Claim 10.

Contrary to the Official Action's hindsight assertion, one of ordinary skill in the art would not have any motivation to modify the primary reference of Kraslavsky et al to operate by transmitting information including a request for a status of a monitored device through Internet electronic mail, wherein the information is contained in an Internet electronic mail message, by referring to the electronic mail disclosed in the secondary reference to Cohn et al.

In view of the foregoing comments, it is respectfully submitted that the invention defined by Claims 10, 12-19, 36, 38-44, and 52-61 is patentable, and a swift and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

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